

Appl. No. 09/681,571

Amtdt. Dated 3 January 2005

Reply to Office action of 4 October 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A method for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the method comprising:

determining ~~electromagnetic effects~~ on at least one of keybar voltage or keybar current of adjusting positions of the keybars with respect to positions of the phase belts; and

selecting a position of the keybars with respect to a position of the phase belts which provides minimal ~~adverse electromagnetic effects~~ keybar voltage.

2 (currently amended). The method of claim 1 further comprising determining ~~electromagnetic effects~~ of adjusting the number of keybars, and wherein selecting the position of the keybars comprises selecting both the position of the keybars and a number of the keybars to provide minimal ~~adverse electromagnetic effects~~ keybar voltage.

3 (currently amended). The method of claim 1 further comprising determining ~~electromagnetic effects~~ of adjusting the number of stator slots, and wherein selecting the position of the keybars comprises selecting both the position of the keybars and a number of the stator slots to provide minimal ~~adverse electromagnetic effects~~ keybar voltage.

4 (currently amended). The method of claim 1 further comprising determining ~~electromagnetic effects~~ of adjusting a direction of rotation of a rotor with respect to the stator, and wherein selecting the position of the keybars comprises selecting both the position of the keybars and a direction of rotation to provide minimal ~~adverse electromagnetic effects~~ keybar voltage.

5 (currently amended). A method for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the method comprising:

determining ~~electromagnetic effects~~ on at least one of keybar voltage or keybar current of adjusting positions of the keybars with respect to positions of the phase belts, adjusting the number of keybars, and adjusting the number of stator slots; and

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selecting a position of the keybars with respect to a position of the phase belts, a number of the keybars, and a number of stator slots which collectively provide minimal ~~adverse electromagnetic effects~~ keybar voltage.

6 (currently amended). The method of claim 5 further comprising determining ~~electromagnetic effects~~ of adjusting a direction of rotation of a rotor with respect to the stator, and selecting a direction of rotation to provide minimal ~~adverse electromagnetic effects~~ keybar voltage.

7 (currently amended). A method for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the method comprising:

determining ~~electromagnetic effects~~ on at least one of keybar voltage or keybar current of adjusting the number of keybars; and

selecting a number of the keybars which provides minimal ~~adverse electromagnetic effects~~ keybar voltage.

8 (currently amended). The method of claim 7 further comprising determining ~~electromagnetic effects~~ of adjusting the number of stator slots, and wherein selecting the number of the keybars comprises selecting both the number of the keybars and a number of the stator slots to provide minimal ~~adverse electromagnetic effects~~ keybar voltage.

9 (currently amended). A method for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the method comprising:

determining ~~electromagnetic effects~~ on at least one of keybar voltage or keybar current of adjusting the number of stator slots; and

selecting a number of the stator slots which provides minimal ~~adverse electromagnetic effects~~ keybar voltage.

10 (currently amended). A method for operating an electric machine comprising a rotor and a stator comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the method comprising selecting a direction of rotation of the rotor which provides minimal keybar voltage ~~adverse electromagnetic effects on the keybars~~.

11 (currently amended). A system for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the system comprising:

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means for determining ~~electromagnetic effects~~ on at least one of keybar voltage or keybar current of adjusting positions of the keybars with respect to positions of the phase belts; and

means for selecting a position of the keybars with respect to a position of the phase belts which provides minimal ~~adverse electromagnetic effects~~ keybar voltage.

12 (original). The system of claim 10 wherein the means for determining and the means for selecting comprise a computer.

13 (currently amended). A system for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the system comprising:

means for determining ~~electromagnetic effects~~ on at least one of keybar voltage or keybar current of adjusting positions of the keybars with respect to positions of the phase belts, adjusting the number of keybars, and adjusting the number of stator slots; and

means for selecting a position of the keybars with respect to a position of the phase belts, a number of the keybars, and a number of stator slots which collectively provides minimal ~~adverse electromagnetic effects~~ keybar voltage.

14 (currently amended). A system for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the system comprising:

means for determining ~~electromagnetic effects~~ on at least one of keybar voltage or keybar current of adjusting the number of keybars; and

means for selecting a number of the keybars which provides minimal ~~adverse electromagnetic effects~~ keybar voltage.

15 (currently amended). A system for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the system comprising:

means for determining ~~electromagnetic effects~~ on at least one of keybar voltage or keybar current of adjusting the number of stator slots; and

means for selecting a number of the stator slots which provides minimal ~~adverse electromagnetic effects~~ keybar voltage.

16 (currently amended). A system for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the system comprising a computer for performing simulations to determine ~~electromagnetic~~

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effects on at least one of keybar voltage or keybar current of adjusting positions of the keybars with respect to positions of the phase belts.

17 (currently amended). A system for designing a stator for an electric machine comprising lamination segments coupled to a stator frame by keybars and stator winding phase belts within stator slots of the lamination segments, the system comprising a computer for performing simulations to determine ~~electromagnetic~~ effects on at least one of keybar voltage or keybar current of adjusting positions of the keybars with respect to positions of the phase belts, adjusting the number of keybars, and adjusting the number of stator slots.